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Applicant/Patent Owner: Agere Systems Guar	dian Corp.
Application No./Patent No.: 09/326,785  Method and Apparatus for Reduci Entitled: and Relaxing the Critical Path	Filed/Issue Date: June 4, 1990hnology Center 21 of Reduced State Sequence Estimation (RSSE)
Techniques  Agere Systems Guardian Corp., a corp	· · · · · · · · · · · · · · · · · · ·
	f Assignee, e.g., corporation, partnership, university, government agency, etc.)
	·
states that it is:	
1. 🔀 the assignee of the entire right, title, and intere	est; or
2. an assignee of less than the entire right, title a The extent (by, percentage) of its ownership in	
in the patent application/patent identified above by vi	rtue of either:
	ent application/patent identified above. The assignment Trademark Office at Reel, Frame, or for
OR	
B. [x] A chain of title from the inventor(s), of the pate assignee as shown below:	ent application/patent identified above, to the current
1. From: Inventor(s)	To: Lucent Technologies Inc.
Reel <u>011034</u> , Frame <u>0317</u>	ed States-Patent and Trademark Office at, or for which a copy thereof is attached.
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	nent document or a true copy of the original document) rdance with 37 CFR Part 3, if the assignment is to be
The undersigned (whose title is supplied below) is auth	horized to act on behalf of the assignee.
7/17/01	Kevin M. Mason, Reg. No. 36,597
Date	Typed or printed name  Klun M March
	Signature
	Attorney for Applicant(s)
	Title

### ASSIGNMENT AND AGREEMENT

For value received, we, Erich Franz Haratsch, of Bradley Beach in the County of Monmouth and State of New Jersey, and Harish Viswanathan, of Matawan in the County of Monmouth and State of New Jersey, hereby sell, assign and transfer to Lucent Technologies Inc., a corporation of the State of Delaware, having an office at 600 Mountain Avenue, Murray Hill, New Jersey 07974-0636, U.S.A., and its successors, assigns and legal representatives, the entire right, title and interest, for the United States of America, in and to certain inventions related to a METHOD AND **APPARATUS FOR** REDUCING THE **COMPUTATIONAL** COMPLEXITY AND RELAXING THE CRITICAL PATH OF REDUCED STATE SEQUENCE ESTIMATION (RSSE) TECHNIQUES, described in an application for Letters Patent of the United States filed on June 4, 1999 and assigned Serial No. 09/326,785, and all the rights and privileges in said application and under any and all Letters Patent that may be granted in the United States for said inventions; and we also concurrently hereby sell, assign and transfer to Lucent Technologies Inc. the entire right, title and interest in and to said inventions for all countries foreign to the United States, including all rights of priority arising from the application aforesaid, and all the rights and privileges under any and all forms of protection, including Letters Patent, that may be granted in said countries foreign to the United States for said inventions.

We authorize Lucent Technologies Inc. to make application for such protection in its own name and maintain such protection in any and all countries foreign to the United States, and to invoke and claim for any application for patent or other form of protection for said inventions, without further authorization from us, any and all benefits, including the right of priority provided by any and all treaties, conventions, or agreements.

We hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any document which may be required in any country in proof of the right of Lucent Technologies Inc. to apply for patent or other form of protection for said inventions and to claim the aforesaid benefit of the right of priority.

We request that any and all patents for said inventions be issued to Lucent Technologies Inc. in the United States and in all countries foreign to the United States, or to such nominees as Lucent Technologies Inc. they may designate.

We agree that, when requested, we shall, without charge to Lucent Technologies Inc. but at its expense, sign all papers, and do all acts which may be necessary, desirable or convenient in connection with said applications, patents, or other forms of protection.

Erich Franz Haratsch

Date: 144 29 1949

United States of America

State of New Jersey ) ss.

County of Moumouth

Notary Public

LINDA K. KIRCHIKAN Motory Public of New Jersey, USA Registered in Monmouth County My Commission Expires 10/28/99 Harish Viswanathan

Date: July 27, 1999

United States of America

State of New Jersey ) ss.: County of Monnouth)

, before me personally came Harish Viswanathan, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.

)

Notary Public

LANDA K KRICHMAN Motory Public of New Jersey, USA Registered in Monmouth Coursy My Commission Expires 10/28/99

Ryan & Mason, L.L.P. 90 Forest Avenue Locust Valley, NY 11560

**EXECUTION COPY** 

# PATENT ASSIGNMENT

by and between

LUCENT TECHNOLOGIES INC.

and

AGERE SYSTEMS GUARDIAN CORP.

Dated as of January 30, 2001

### PATENT ASSIGNMENT

THIS PATENT ASSIGNMENT (this "Assignment"), effective as of January 30, 2001 (the "Effective Date"), is by and between Lucent Technologies Inc., a Delaware corporation, with offices at 600 Mountain Avenue, Murray Hill, New Jersey 07974, United States of America, ("ASSIGNOR") and Agere Systems Guardian Corp., a Delaware corporation, with offices at 555 Union Boulevard, Allentown, PA 18109, United States of America ("Agere Systems Guardian").

### RECITALS

- A. WHEREAS, the Board of Directors of ASSIGNOR has determined that it is in the best interests of ASSIGNOR and its stockholders to separate ASSIGNOR's existing businesses into two independent businesses;
- B. WHEREAS, ASSIGNOR presently owns or controls certain patents, patent applications, and invention submissions listed in the attached Appendices A and B (hereinafter "TRANSFERRED PATENTS") and;
- C. V/HEREAS, in furtherance of the foregoing separation, ASSIGNOR desires to transfer, assign, convey, deliver and vest all of its interests and rights in TRANSFERRED PATENTS for all countries, jurisdictions and political entities of the world, to and in Agere Systems Guardian;

NOW, THEREFORE, in consideration of the premises and for other good and valid consideration, the receipt and sufficiency of which are hereby acknowledged, the parties, intending to be legally bound, agree as follows:

ASSIGNOR, subject to existing rights and licenses of third parties, does hereby assign, convey, transfer and deliver, and agrees to assign, convey, transfer and deliver to Agere Systems Guardian, its successors, assigns and legal representatives or nominees, ASSIGNOR's entire right, title and interest, for all countries, jurisdictions and political entities of the world, along with the right to sue for past infringement, to all TRANSFERRED PATENTS listed on Appendices A and B, and corresponding counterpart foreign patents and patent applications, with respect to which, and to the extent to which, ASSIGNOR now has or hereafter acquires the right to so assign, convey, transfer and deliver. Agere Systems Guardian recognizes that ASSIGNOR holds only bare legal title to the TRANSFERRED PATENTS listed in Appendix A (which lists the United States Patents and patent applications previously exclusively licensed to Lucent Technologies Microelectronics Guardian Corp.).

ASSIGNOR and ASSIGNEE recognize that the patents listed in Appendices A and B may inadverten by include patents that are owned by various subsidiaries of ASSIGNOR, including Agere, Inc., Ortel Corporation, Optimay Corporation, Herrmann Technology, Inc., and Enable Semiconductor, Inc. Ownership of such patents shall not be affected by this Patent

Assignment, and ASSIGNEE agrees that any such patents shall be deemed deleted from Appendices A and B.

ASSIGNOR agrees that, upon request it will, at any time without charge to Agere Systems Guardian, but at Agere Systems Guardian's expense, furnish all necessary documentation relating to or supporting chain of title, sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable or convenient for vesting title to TRANSFERRED PATENTS in Agere Systems Guardian, its successors, assigns and legal representatives or nominees; including but not limited to any acts which may be necessary, desirable or convenient for claiming said rights and for securing and maintaining patents for said inventions in any and all countries and for vesting title thereto in Agere Systems Guardian and its respective successors, assigns and legal representatives or nominees.

IN WITNESS WHEREOF, the parties have caused this PATENT ASSIGNMENT to be executed by their duly authorized representatives as of the Effective Date.

LUCENT TECHNOLOGIES INC.

Daniel P. McCurdy

President, Intellectual Property Business

AGERE SYSTEMS GUARDIAN CORP.

Fred M. Romano

President





## **ACKNOWLEDGMENTS**

STATE OF NEW JERSEY) SS: COUNTY OF SOMERSET)

I CERTIFY that on Quality 30 2001, Daniel P. McCurdy personally came before me and this person acknowledged under oath, to my satisfaction that: a.) this person signed, sealed and delivered the attached Patent Assignment as President -

Intellectual Property Business of Lucent Technologies Inc.; and

b.) this Patent Assignment was signed and made by Lucent Technologies Inc. as its voluntary act and cleed by virtue of authority from its Board of Directors.

Notary Public

TAMORA ANNE HANNA Notary Public of New Jersey My Commission Expiresistered in Hunterdon County My Commission Expires March 25, 2003

[Notarial Seal]

STATE OF FLORIDA)

S**\$**:

COUNTY OF GRANGE)

I CERTIFY that on January 31, 2001, Fred M. Romano personally came before me and this person acknowledged under oath, to my satisfaction that:

a.) this person signed, sealed and delivered the attached Patent Assignment as Vice President of Agere Systems Guardian Corp., and

b.) this Patent Assignment was signed and made by Agere Systems Guardian Corp. as its voluntary act and deed by virtue of authority from its Board of Directors.

Notary Public

My Commission Expires:

[Notarial Seal]





# APPENDIX B (continued) Transferred Patents

<b>V</b>					
	Case Name	Filing Date	Issue Date	Patent No.	Serial No.
	Hamm 12-14-9-7-5	11/4/1999			09/433204
	Hamm 3-7-2	4/13/1998		09/059359	
	Hamparian 2	4/13/1998	7/18/2000	6091279	
	Han 1	11/7/1997	77107200	08/965706	
	Han 2	10/27/1999		03.555.55	09/428073
	Hanumaihgari 1-1-1-1-9-8-	5/10/1999		•	60/133396
	1-1-1-2	3/10/1000			30
	Hao 1-1	12/5/1997		08/985975	40/00705
	Haratsch 1-4	6/4/1999			09/326785
	Hardin 8-24	3/29/1999			09/280169
	Harman 5	10/30/1998			09/182885
	Harman 6	8/11/1999			09/372332
	Harpham 1-1	3/26/1999			09/277488
ı	Harriott 11-22	8/27/1999			09/384395
	Harris 1	7/10/1997		08/891438	
	Harris 2-2-1	10/29/1999			09/430635
	Harris 2-47-1	9/29/1999			09/408299
	Harris 3	9/23/1999			09/404702
	Harris 3	12/28/1999			09/473876
	Harris 4-1	10/28/1999			09/428689
	Harris 5-21-18-5	12/17/1999			09/466715
	Harris 8-138-7	8/31/2000		09/652479	
	Hartley 2	11/23/1999			09/448611
	Hartmann 3-3	11/7/1996	3/14/2000	6038300	
	Hartmann 6-5	8/13/1999	.,,		09/374400
	Havens 10	6/21/1999	•		09/337489
	Havens 11-6-1	1/28/2000			09/493287
	Havens 6	8/24/1998		09/138702	••••
	Havens 7	8/24/1998	*	09/138701	
	Havens 9-4	6/23/1999		00/100/01	09/339326
	Haynes 15-17	4/10/1998		09/058505	00/000020
	Heckner 1-2-3	6/12/1998		09/096900	
	Hendricks 10-36-17-16	9/23/1999		00/00000	09/401995
	Hendricks 11	10/27/1999			09/428086
	Hendricks 3	4/7/1998		09/056722	00/120000
	Hendricks 6-8	4/26/1999		00,000.22	09/299089
	Hendricks 7-30-11	7/30/1999			09/363005
	Hendricks 8-31-12-15	8/24/1999			09/379603
	Hendricks 9-32-13	9/23/1999			09/401994
		10/9/1998			09/169794
	Henry 1	1/19/2000	,		09/487117
	Henry 5-3 Henzen 1-1	10/15/1999	•		09/418457
		6/18/1999			09/335646
	Hergenrother 2-5	6/18/1999			09/335707
	Hergenrother 3-6-10				09/569186
	Hergenrother 4-1-/	5/11/2000		60/224134	09/308100
	Herman 1	8/10/2000		00/224134	00/420447
	Hernandez 1-1-1	10/29/1999			09/430147
	Herrera 1-3	9/29/1999			09/407533
	Herrera 2-4	9/29/1999			09/407535
	Herrera Alzu 1-3-5-12	12/13/1999			09/460159
	Higashi 10-1-2-2	2/22/1999			09/253715
	Higashi 11	7/30/1999			09/364367
	Higashi 12	7/30/1999			09/364208
	Higashi 13	11/15/1999			60/165542
	Higgins 10-12-18	10/13/1998			09/170351
	Higgins 11-13-4-2 19	10/13/1998			09/170353
	Higgins 16-8	11/4/1999			09/433759
	Hillenius 19-25	8/7/1997		08/907406	
	Hinzmann 1-1-10-2	6/28/1995	7/15/1997	D381024	
	Hobbi 2	1/19/1999			09/233580